

CLAIMS

What is claimed is:

1. A method for encoding a signal presence within a video signal to be presented on a digital display device, the video signal having a first frame and a second frame, the first frame and the second frame each comprised of a plurality of pixels, the method comprising:

obtaining the video signal from a signal source and providing the video signal to an encoder;

selectively altering luminance of the pixels of the first frame and the second frame of the video signal to represent the signal presence; and

providing the video signal with altered luminance to a broadcast source.

2. The method of claim 1 wherein the step of selectively altering luminance is by creating a significant difference in signal strength between the first frame and the second frame of the video signal.

3. The method of claim 1 wherein the step of selectively altering luminance is triggered by receipt of a carrier signal.

4. The method of claim 1 wherein the step of selectively altering luminance of the first frame and the second frame of the video signal to represent the signal presence is by increasing overall luminance on the first frame of the video signal and decreasing overall luminance on the second frame of the video signal.

5. The method of claim 1 wherein the step of selectively altering luminance of the first frame and the second frame of the video signal is by adding a sine wave signal to the video signal and increasing the amplitude of the sine wave signal in the first frame of the video signal and decreasing the amplitude of the sine wave signal in the second frame of the video signal.

6. The method of claim 1 wherein the step of altering luminance of the first frame and the second frame of the video signal is by adding a sine wave signal to the video signal and increasing the amplitude of the sine wave signal to one of two signal levels in the first frame of the video signal and

decreasing the amplitude of the sine wave signal to one of two signal levels in the second frame of the video signal.

7. A method of detecting signal absences and signal presences in a video signal, the video signal having a first frame and a second frame, the method comprising:

receiving the video signal from a broadcast source on a detector;

performing on the detector a comparison of signal strength of the first frame of the video signal with signal strength of the second frame of the video signal;

providing the detector with a signal absence if the comparison is negligible; and

providing the detector with a signal presence if the comparison is not negligible.

8. The method of claim 7 wherein the detector is a combo user device.

9. The method of claim 7 wherein the signal absence is a data bit of 0 and the signal presence is a data bit of 1.

10. A game device for use by a user in conjunction with a video signal representing a video program, the device comprising:

a device microcontroller;

a means for detecting the carrier signal in the video signal on the game device and electronically coupled to the device microcontroller; and

a means for receiving additional game options on the gaming device from detection of the carrier signal on the game device and electronically coupled to the device microcontroller.

11. The game device of claim 10 wherein the means for detecting the carrier signal in the video signal on the game device is a photodetector and accompanying circuitry.

12. A system for transmitting a modulated video signal to be presented on a digital display device, the video signal having a first frame and a second frame, the first frame and the second

frame each comprised of a plurality of pixels, the system comprising:

a signal source for generating a video signal;

an encoder, the encoder comprising a means for receiving the video signal from the signal source; a means for selectively altering luminance of the pixels of the first frame and the second frame of the video signal to represent a signal presence or signal absence and thereby creating a modulated video signal; and a means for providing the modulated video signal to a broadcast source; and

the broadcast source for providing the modulated video signal from the encoder to a digital display device.

13. The system of claim 12 further comprising a decoder, the decoder comprising a means for receiving the modulated video signal from the broadcast source; a means for performing on the detector a comparison of signal strength of the first frame of the video signal with signal strength of the second frame of the video signal; a means for providing the detector with the signal absence if the comparison is negligible; and a means for

providing the detector with the signal presence if the comparison is not negligible.

14. The system of claim 12 wherein the decoder contains means to provide the signal absence or the signal presence to a signaled device.

15. The system of claim 12 where the means for receiving the modulated video signal from the broadcast source is a photodetector and accompanying circuitry.

16. The system of claim 12 wherein the means for selectively altering luminance is by creating a significant difference in signal strength between the first frame and the second frame of the video signal.

17. The system of claim 12 wherein the means for selectively altering luminance is triggered by receipt of a carrier signal.

18. The system of claim 12 wherein the means for selectively altering luminance of the first frame and the second frame of the video signal to represent the signal presence is by increasing overall luminance on the first frame of the video

signal and decreasing overall luminance on the second frame of the video signal.

19. The system of claim 12 wherein the means for selectively altering luminance of the first frame and the second frame of the video signal is by adding a sine wave signal to the video signal and increasing the amplitude of the sine wave signal in the first frame of the video signal and decreasing the amplitude of the sine wave signal in the second frame of the video signal.

20. The system of claim 12 wherein the means for altering luminance of the first frame and the second frame of the video signal is by adding a sine wave signal to the video signal and increasing the amplitude of the sine wave signal to one of two signal levels in the first frame of the video signal and decreasing the amplitude of the sine wave signal to one of two signal levels in the second frame of the video signal.

21. The system of claim 13 wherein the signal absence is a data bit of 0 and the signal presence is a data bit of 1.